



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,563	03/31/2004	Zhibin Wang	ORACL-01513US0	6910
80548	7590	12/08/2008		
Fliesler Meyer LLP 650 California Street 14th Floor San Francisco, CA 94108			EXAMINER MITCHELL, JASON D	
			ART UNIT 2193	PAPER NUMBER
			MAIL DATE 12/08/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/814,563	Applicant(s) WANG ET AL.	
	Examiner JASON MITCHELL	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-11,13-18 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-11,13-18 and 20-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to an amendment filed on 9/12/08.

Claims 1-4, 6-11, 13-18 and 20-24 are pending in this application.

Response to Arguments

Applicant's arguments filed 9/12/08 have been fully considered but they are not persuasive.

In the last full par. on pg. 10 the applicants state:

Applicant respectfully submits that the combination of McNeely in view of Dubovsky appears to disclose a single test tool with a tool-specific scripting language. Claim 1, however, defines a plurality of different software test tools and each software test tool is associated with a different tool-specific scripting language. Claim 1 also defines generic interface commands that are abstractions of any of the tool-specific scripting language. Thus, a user does not need knowledge of either the application-specific environment he is testing or the test-tool environment used to conduct the test. Instead the user only needs to know the generic interface commands. Further, this means that the user is not locked into a single test tool; the same, previously written scripts can be used if the user stops using a first test tool that is only compatible with a first test-tool specific scripting language and begins using a second test tool that is only compatible with a second test-tool specific scripting language. Applicant respectfully submits that the cited references, alone or in combination, do not disclose or render obvious the embodiment of Claim 1, as amended.

The examiner respectfully disagrees. First, it is noted that the claims do not make mention of an "application-specific environment" and thus are silent regarding a user's knowledge of such. Further, the asserted lack of knowledge would appear to be anticipated by McNeely (see e.g. Abstract "Test cases can thus be written ... without requiring the tester to have knowledge of device-specific demands").

Still further, and contrary to the applicants' assertion McNeely discloses a plurality of test tools each with there own specific tool-specific scripting language (col. 13, lines 57-62 "device-specific commands ... may be tool command language commands"; also see Fig. 3, DUTs 302).

Applicant's arguments with respect to claims 4, 11 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claims 8 and 15 are objected to because of the following informalities: In the 3rd par. claim 8 recites "wherein eacg software test tool". It is believed this should read "wherein each software test tool". Claim 15 makes a similar recitation. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-10, 13-17 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 7,117,411 to McNeely et al. (McNeely) in view of US 2003/0055836 to Dubovsky (Dubovsky).

Regarding Claims 1, 8 and 15: McNeely discloses a system that provides a generic user interface testing framework, comprising:

a computer including a computer readable medium, and a processor operating thereon (Fig. 1);

a plurality of different software test tools, wherein each software test tool is associated with a different tool-specific scripting language (col. 13, lines 57-62 “device-specific commands ... may be tool command language commands”), that can be invoked by a user to perform testing operations on a software application (col. 13, lines 49-52 “a plurality of device-specific test case packages 404”; col. 13, lines 47-49 “a suitable GUI tester is added via a new package”), and wherein each of the plurality of different software test tools use only their own tool-specific scripting language (col. 15, lines 54-60 “tool command language command (ST6)”) to test graphical user interfaces associated with a plurality of different software applications (col. 13, lines 47-49 “communication with GUI-based devices can occur”);

a test case input file stored on the computer readable medium, that contains a plurality of generic interface commands that are abstractions independent of any of the tool-specific scripting languages (col. 15, lines 47-52 “an abstract command language command (ST4)”), wherein the test case input file can be edited and reused as necessary by the user to specify different generic interface commands for testing in any of the different software test tools (col. 4, lines 30-34 “test case and test plan editor”);
and

an interpretive engine that executes on the computer, and that includes a plurality of dynamically loaded libraries corresponding to the plurality of different software test tools (col. 13, lines 49-52 “a plurality of device-specific test case packages 404), and including a library for each of the plurality of different software test tools (col. 15, lines 36-40 “the appropriate communication interface packages associated with each DUT”), wherein the interpretive engine receives the generic interface commands defined in the test case input file, loads required libraries associated with the software test tool the user is currently using, maps the generic interface commands to the software test tool’s associated tool-specific scripting language (col. 15, lines 47-52 “based on the mapping provided by the appropriate communication interface package, interprets the command within the context of the specific DUT to which the command refers”), uses the software test tool to perform the testing operations on the software application’s graphical user interface using the associated tool-specific scripting language (col. 15, lines 54-60 “produce an equivalent tool command language command”; col. 13, lines 47-49 “Communication with GUI-based devices can occur ... if a suitable GUI tester is added via a new package”), and reports to the user the success or failure of the testing operations (col. 3, lines 53-56 “executing ... test cases”; col. 16, lines 6-8 “the resulting tool command language command is subsequently passed to the communication interface 420”).

McNeely does not disclose a software application source code, including a graphical user interface as part of the software application.

Dubovsky teaches a software application source code, stored on the computer readable medium, wherein the software application source code defines a software application under development, including a graphical user interface as part of the software application (par. [0015] “test case generation, maintenance and execution required during the development and test cycle of a GUI software project”);

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply McNeely’s “generalized test environment” (see e.g. col. 3, lines 53-67) to testing software application source code containing a graphical user interface as taught by Dubovsky (see e.g. [par. 0015]) because one of ordinary skill in the art would have been motivated to save developer time and resources (McNeely col. 3, lines 53-67 “the operator need only be familiar with a common script language rather than device-specific test commands”; Dubovsky par. [0016] “reduce the investment in manpower to implement, maintain and enhance automated test software”) by providing a generic test scripting environment for such systems (McNeely col. 3, lines 53-67; Dubovsky par. [0007] “There are several known testing tools for debugging GUI applications”).

Regarding Claims 2, 9 and 16: The rejections of claims 1, 8 and 15 are incorporated respectively; further McNeely does not explicitly disclose the software test tools stored locally on the same computer or machine.

Art Unit: 2193

McNeely's background teaches that "The client/server framework allows a client to be located on any system in the network, even on the same system on which the server resides" (col. 3, lines 7-10).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store the software test tools on the same computer or machine as McNeely's "Test Tools Server" (see Fig. 3).

Regarding Claims 3, 10 and 17: The rejections of claims 1, 8 and 15 are incorporated respectively; further McNeely discloses the software test tools are stored at another computer or machine (Fig. 3).

Regarding Claims 6, 13 and 20: The rejections of claims 1, 8 and 15 are incorporated respectively; further McNeely discloses the test case input file is created offline and subsequently communicated to the interpretive engine (col. 15, lines 31-34 "downloads the test to execution engine 400").

Regarding Claims 7, 14 and 21: The rejections of claims 1, 8 and 15 are incorporated respectively; further McNeely discloses a software test tool can be replaced with another test software tool (col. 13, lines 47-49 "a suitable GUI tester is added via a new package"), but does not explicitly disclose the test software tool can be removed.

Art Unit: 2193

McNeely teaches “the test cases are independent of the number or types of devices under test” (col. 3, lines 56-57).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to remove test software tools which had been replaced with new test software tools (col. 13, lines 47-49 “a suitable GUI tester is added”).

Regarding Claims 22-24: The rejections of claims 1, 8 and 15 are incorporated respectively; further McNeely discloses, wherein the system defines a contract interface for use as an entry point in loading the libraries corresponding to the plurality of different software test tools (col. 11, the “package require” statements include device packages required for the script. In this example, the device specific packages that are included are mgts, Eagle, and Titen ... The procedures access the device specific packages for multiple devices being tested and perform the functions for each specific device”), and wherein additional software test tools that use a different scripting language can be dynamically plugged into the system at the entry point by defining an execution interface of those additional software test tools to comply with the contract interface (col. 13, lines 47-49 “a suitable GUI tester is added”).

Claims 4, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 7,117,411 to McNeely et al. (McNeely) in view of US 2003/0055836 to Dubovsky (Dubovsky) in view of US 6,823,522 to Lamb (Lamb).

Regarding Claims 4, 11 and 18: The rejections of claims 1, 8 and 15 are incorporated respectively; further McNeely discloses a module for mapping the testing operations to generic interface commands (col. 15, lines 47-52 “based on the mapping provided by the appropriate communication interface package, interprets the command within the context of the specific DUT to which the command refers”).

The McNeely-Dubovsky combination does not explicitly disclose a rules-based wizard guiding the user to edit or create the test input case.

Lamb teaches a rules-based wizard that guides the user to edit or create the test case input file by choosing the testing operations to be included in the test case input file (col. 7, lines 13-16 “the developer is guided through the build process with assistance of a wizard which provides available options for each step of the build process”).

It would have been obvious to one of ordinary skill in the art at the time the invention was made include Lamb's wizard (col. 7, lines 13-16 “a wizard which provides available options for each step of the build process”) in McNeely’s editor (col. 4, lines 30-34 “test case and test plan editor”). Those of ordinary skill in the art would have been motivated to do so in order to facilitate development of the test cases (McNeely col. 12, 2-5 “Editor 314 ... providing users with an easy to use and intuitive file creation/modification

Art Unit: 2193

environment”; Lamb col. 6, line 64-col. 7, line 7 “guide a developer through the application generation process”).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON MITCHELL whose telephone number is (571)272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2193

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/
Examiner, Art Unit 2193

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193